

FIG. 1
PRIOR ART

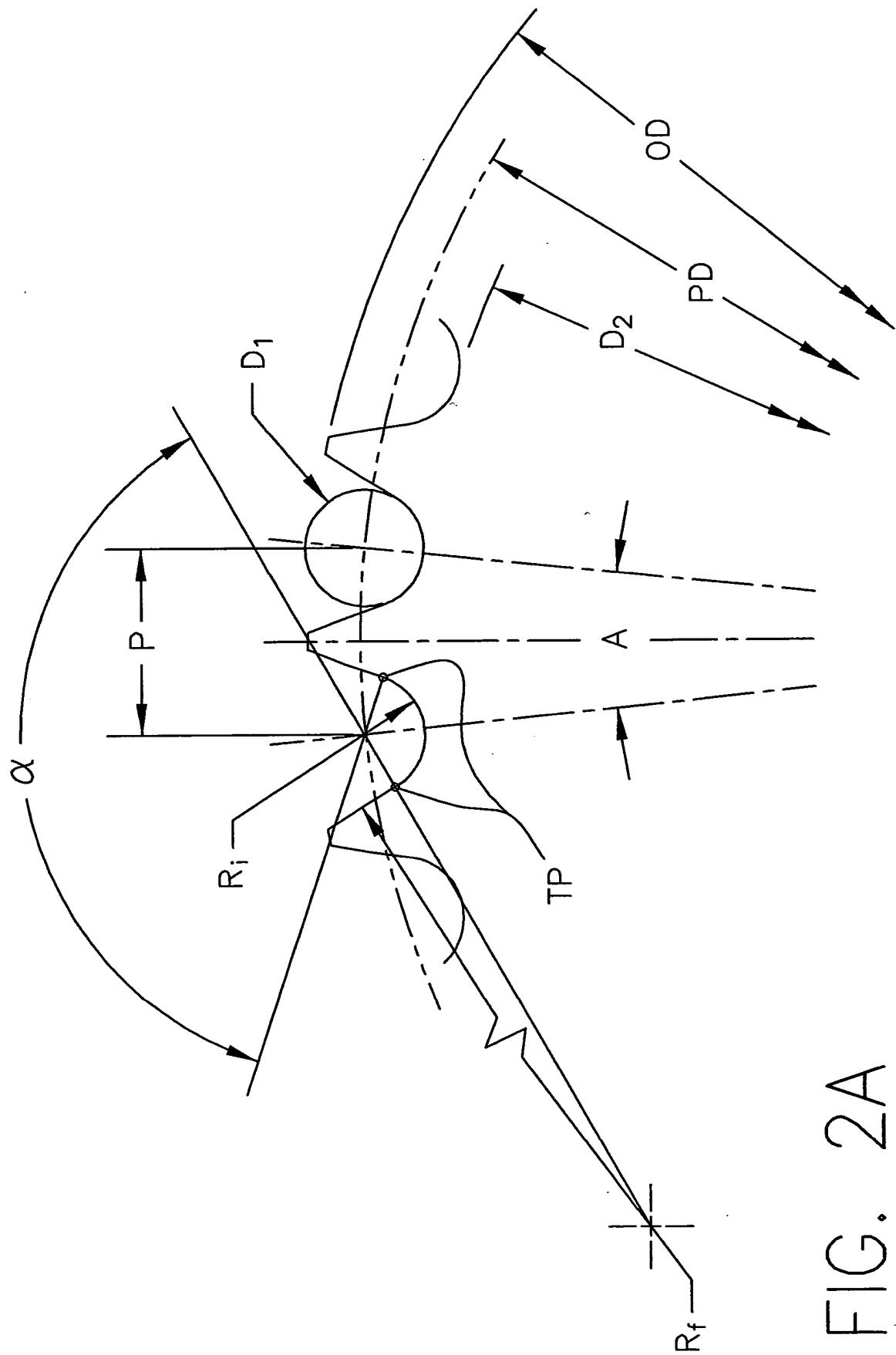


FIG. 2A
PRIOR ART

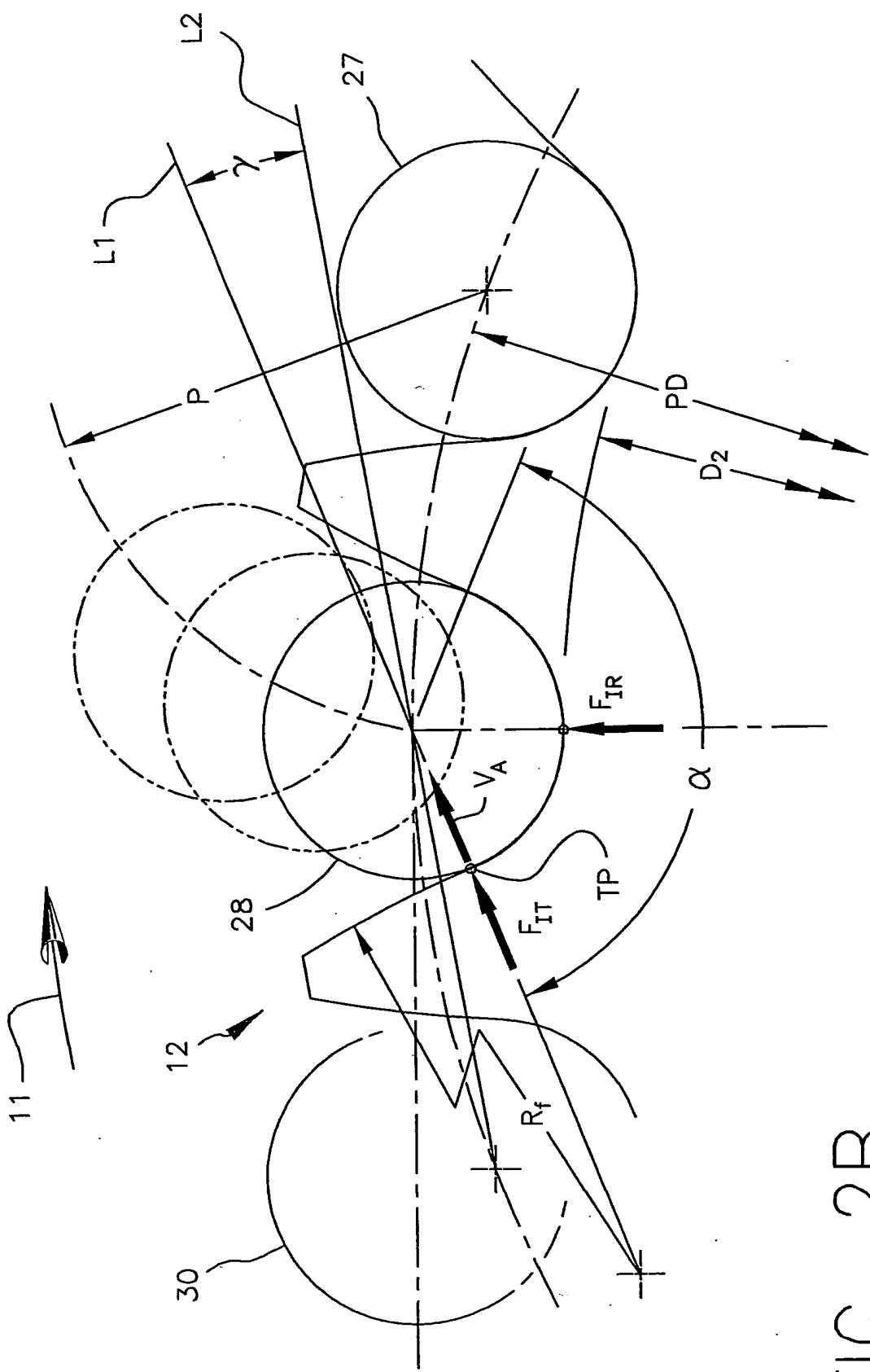


FIG. 2B
PRIOR ART

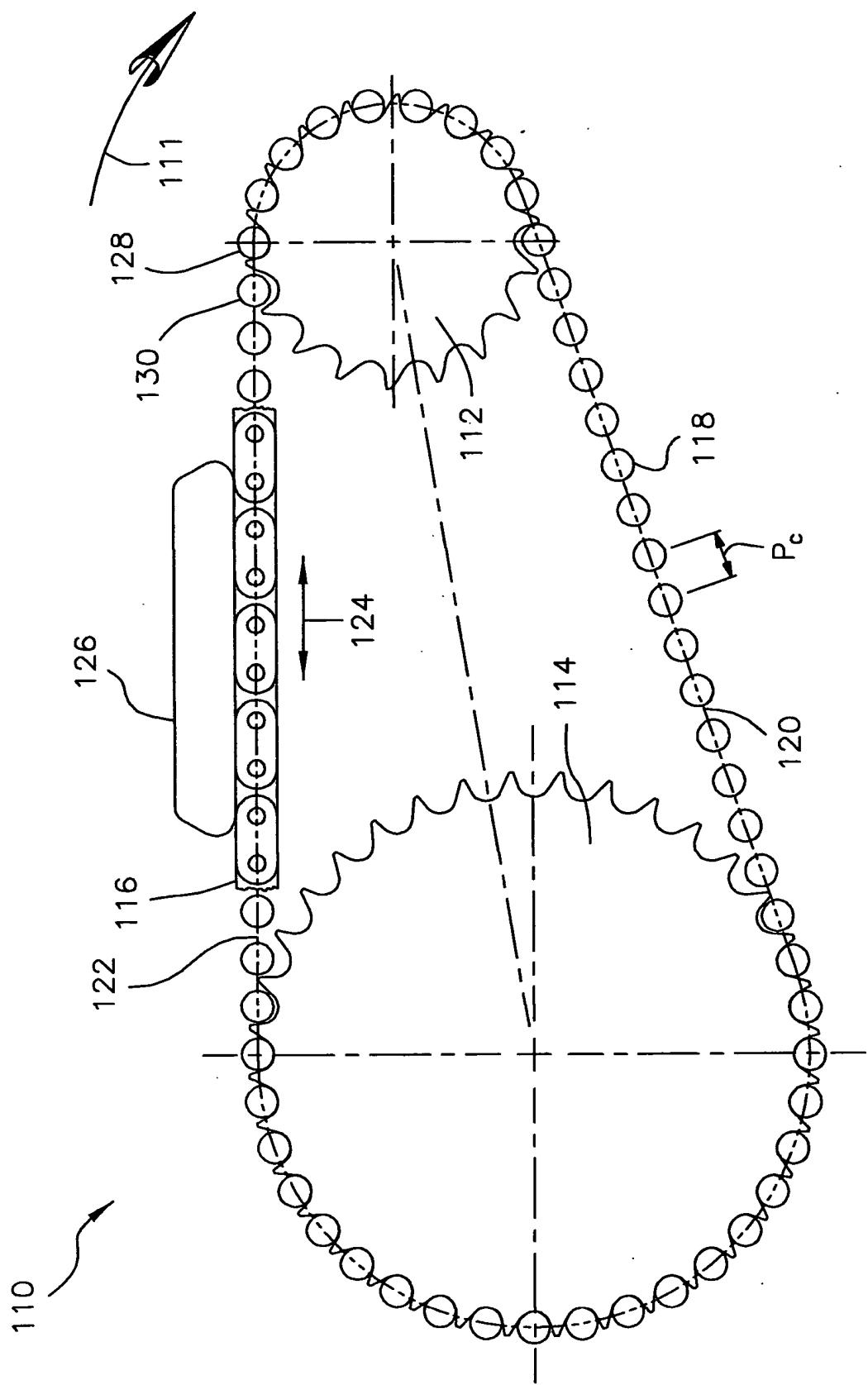


FIG. 3

FIG. 4

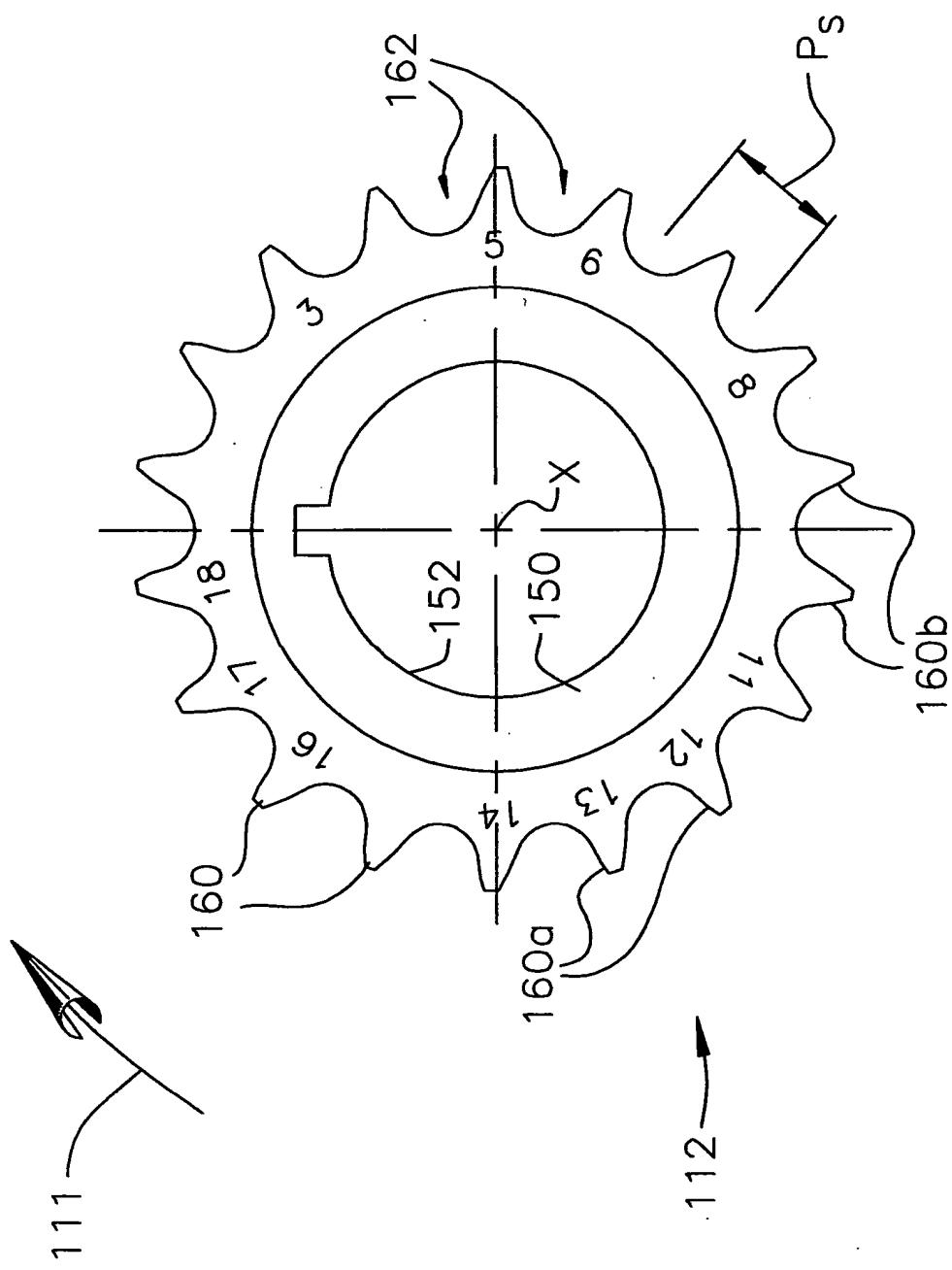
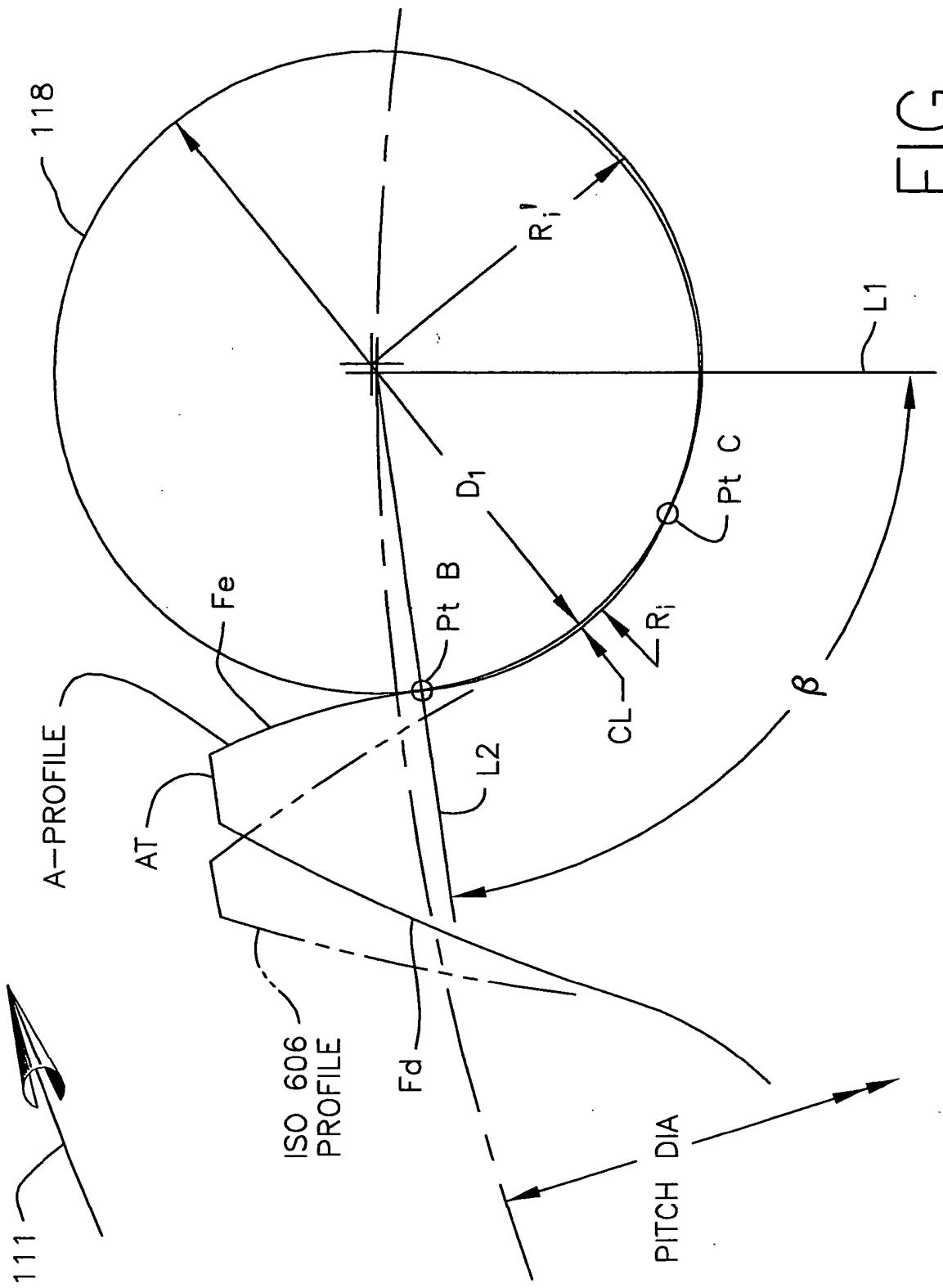


FIG. 5A



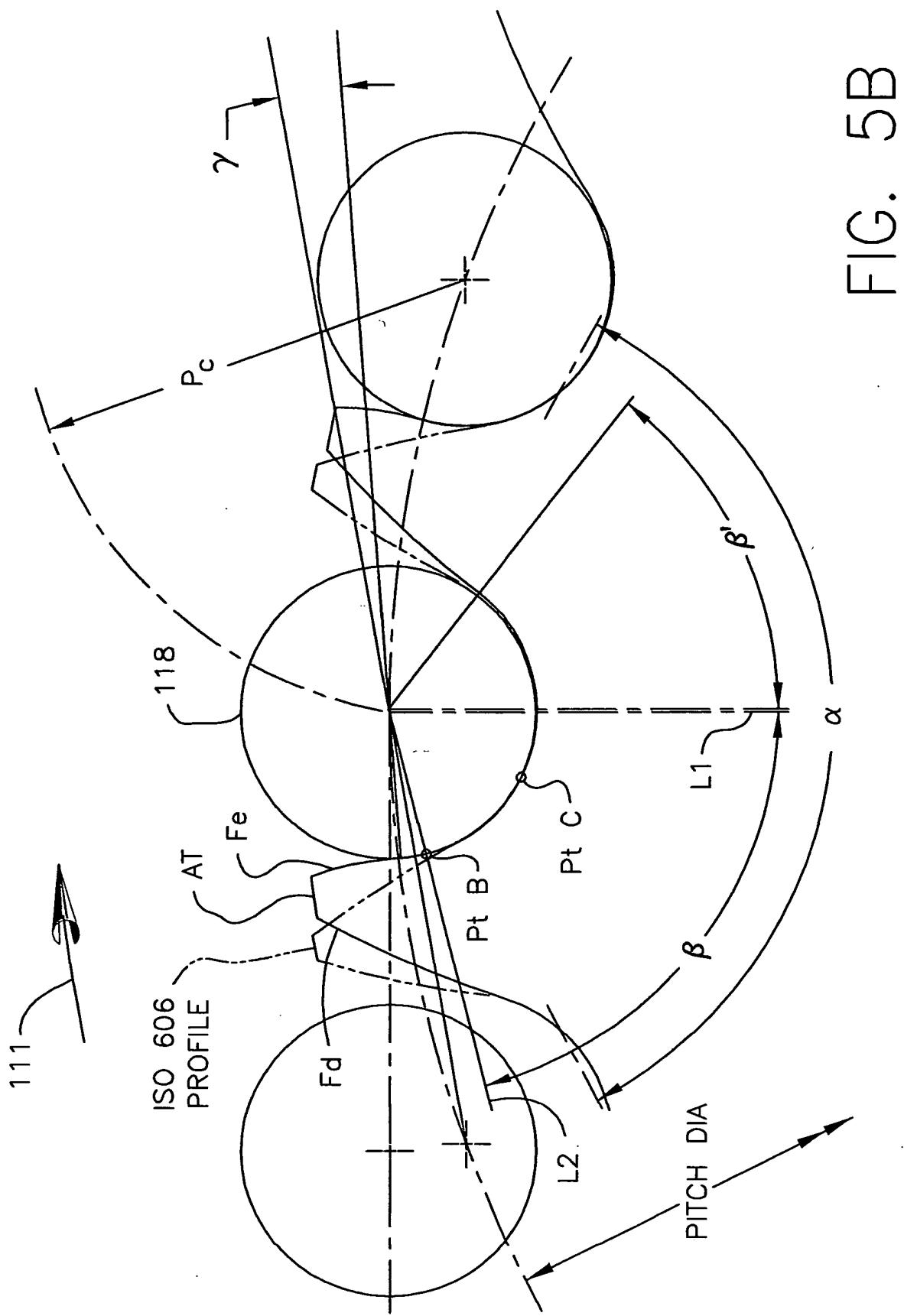


FIG. 5B

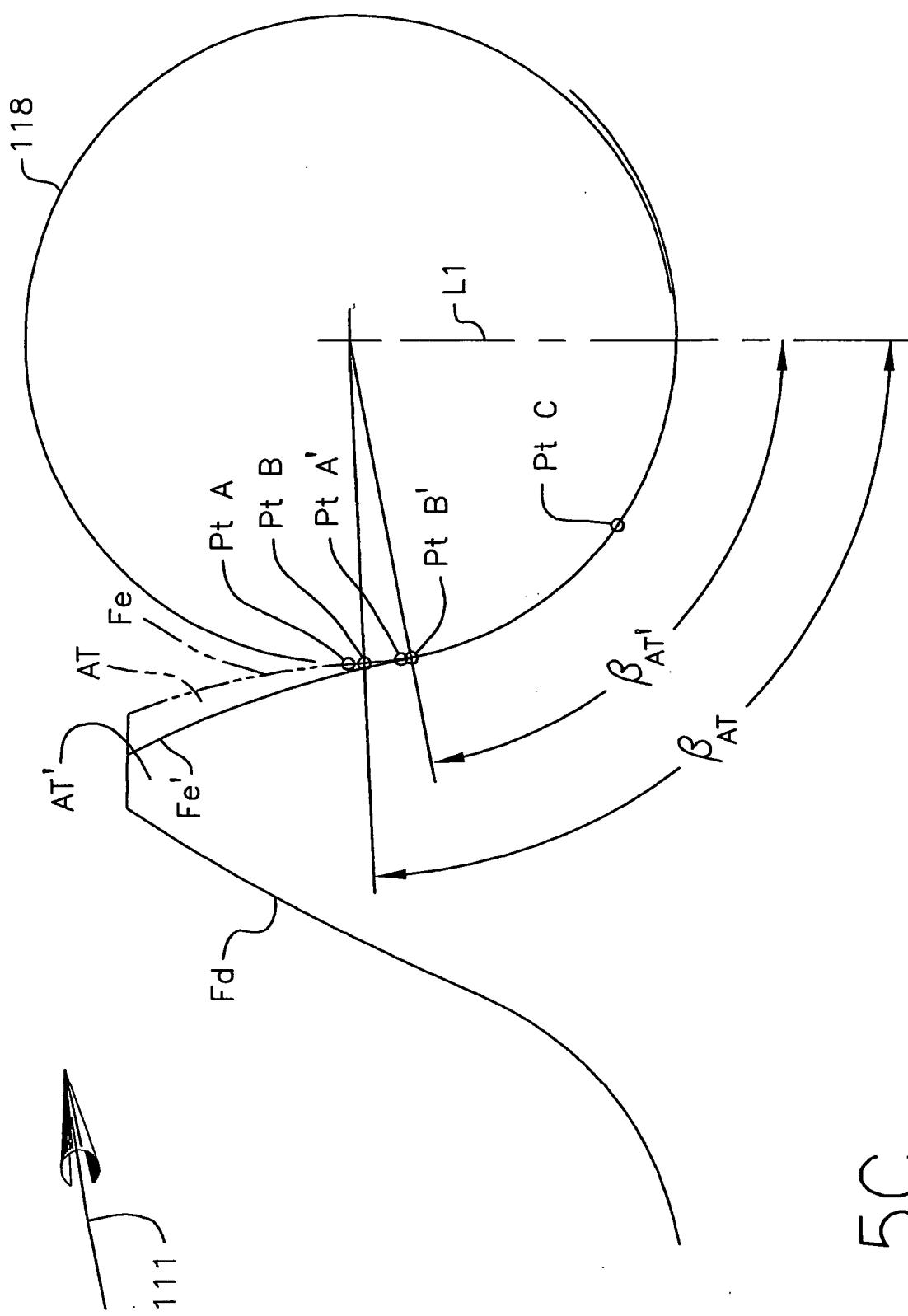
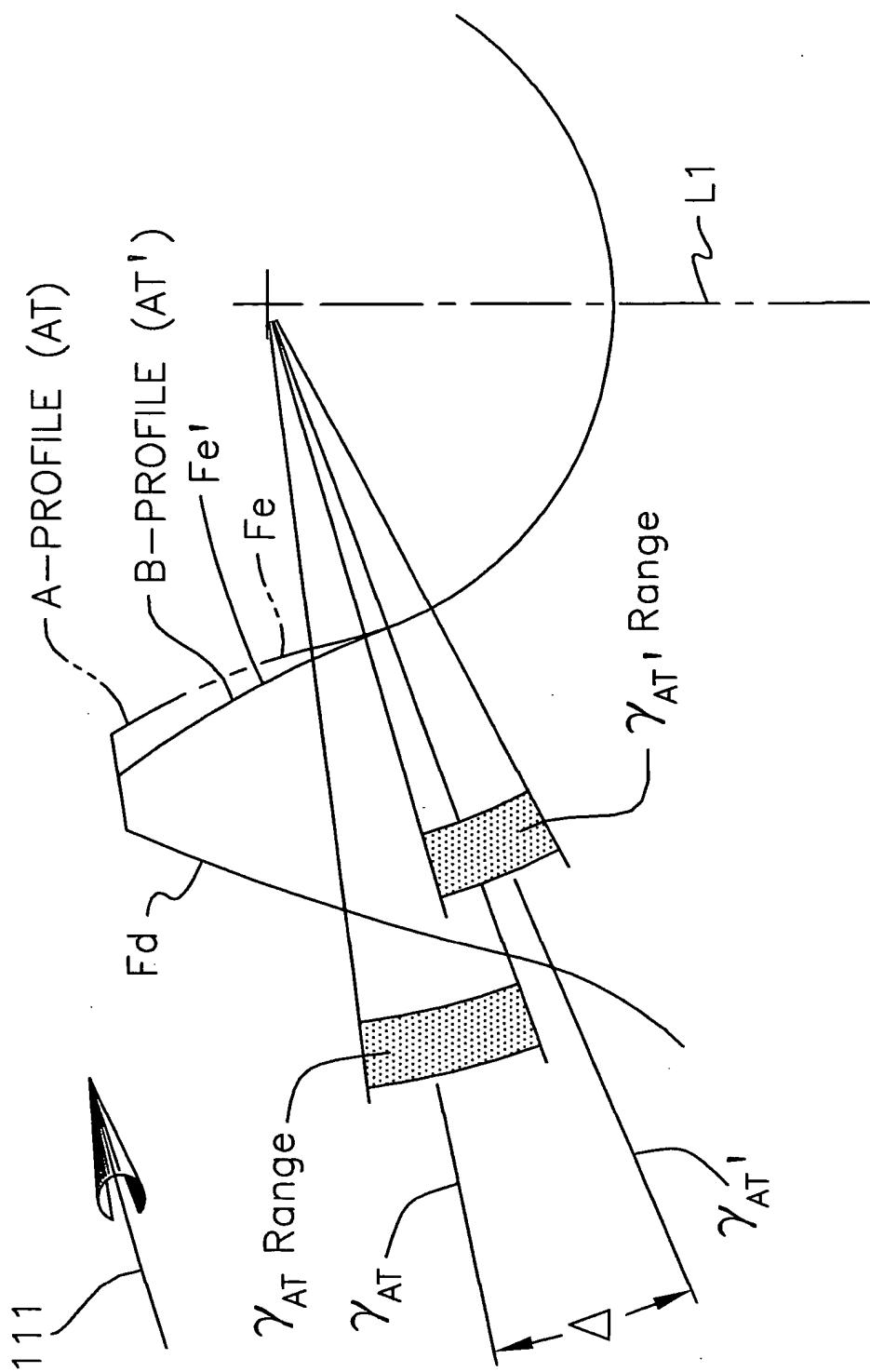


FIG. 5C

FIG. 6A



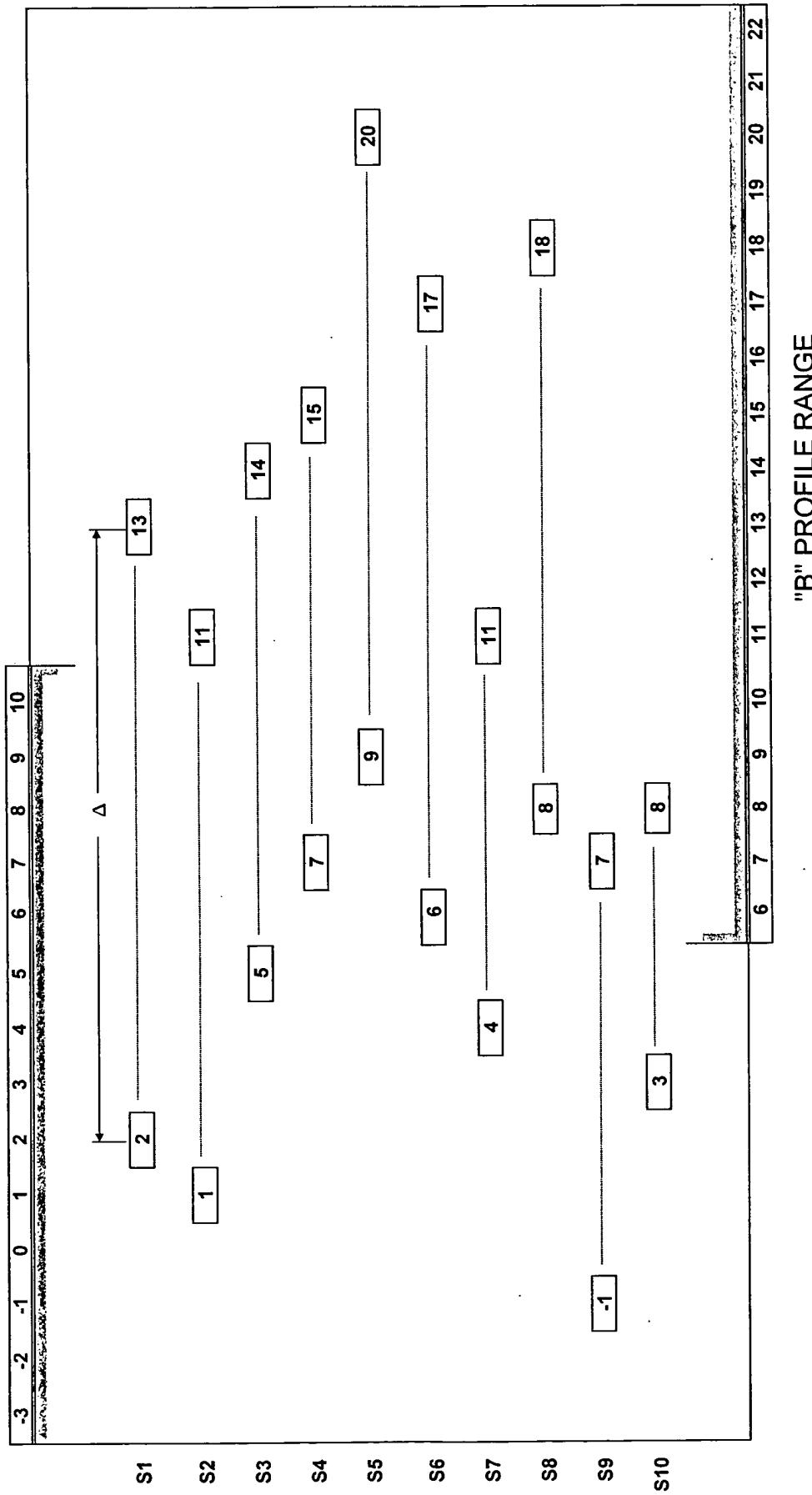
RANDOM - ASYMMETRIC

"A" PROFILE(γ_{AT})				"B" PROFILE(γ_{AT}')			
Z	A	β_{AT} (MAX)	γ_{AT} (MIN)	β_{AT} (MIN)	γ_{AT} (MAX)	β_{AT}' (MAX)	γ_{AT}' (MIN)
18	20.000	83.00	-3.0	70.00	10.0	74.00	6.0
19	18.947	83.53	-3.0	70.53	10.0	74.53	6.0
20	18.000	84.00	-3.0	71.00	10.0	75.00	6.0
21	17.143	84.43	-3.0	71.43	10.0	75.43	6.0
22	16.364	84.82	-3.0	71.82	10.0	75.82	6.0
23	15.652	85.17	-3.0	72.17	10.0	76.17	6.0
24	15.000	85.50	-3.0	72.50	10.0	76.50	6.0
25	14.400	85.80	-3.0	72.80	10.0	76.80	6.0
26	13.846	86.08	-3.0	73.08	10.0	77.08	6.0
27	13.333	86.33	-3.0	73.33	10.0	77.33	6.0
28	12.857	86.57	-3.0	73.57	10.0	77.57	6.0
29	12.414	86.79	-3.0	73.79	10.0	77.79	6.0
30	12.000	87.00	-3.0	74.00	10.0	78.00	6.0
31	11.613	87.19	-3.0	74.19	10.0	78.19	6.0
32	11.250	87.38	-3.0	74.38	10.0	78.38	6.0
33	10.909	87.55	-3.0	74.55	10.0	78.55	6.0
34	10.588	87.71	-3.0	74.71	10.0	78.71	6.0
36	10.000	88.00	-3.0	75.00	10.0	79.00	6.0
38	9.474	88.26	-3.0	75.26	10.0	79.26	6.0
40	9.000	88.50	-3.0	75.50	10.0	79.50	6.0
42	8.571	88.71	-3.0	75.71	10.0	79.71	6.0
44	8.182	88.91	-3.0	75.91	10.0	79.91	6.0
46	7.826	89.09	-3.0	76.09	10.0	80.09	6.0
48	7.500	89.25	-3.0	76.25	10.0	80.25	6.0
50	7.200	89.40	-3.0	76.40	10.0	80.40	6.0

FIG. 6B

RANDOM - ASYMMETRIC PRESSURE ANGLES

"A" PROFILE RANGE



"B" PROFILE RANGE

FIG. 6C

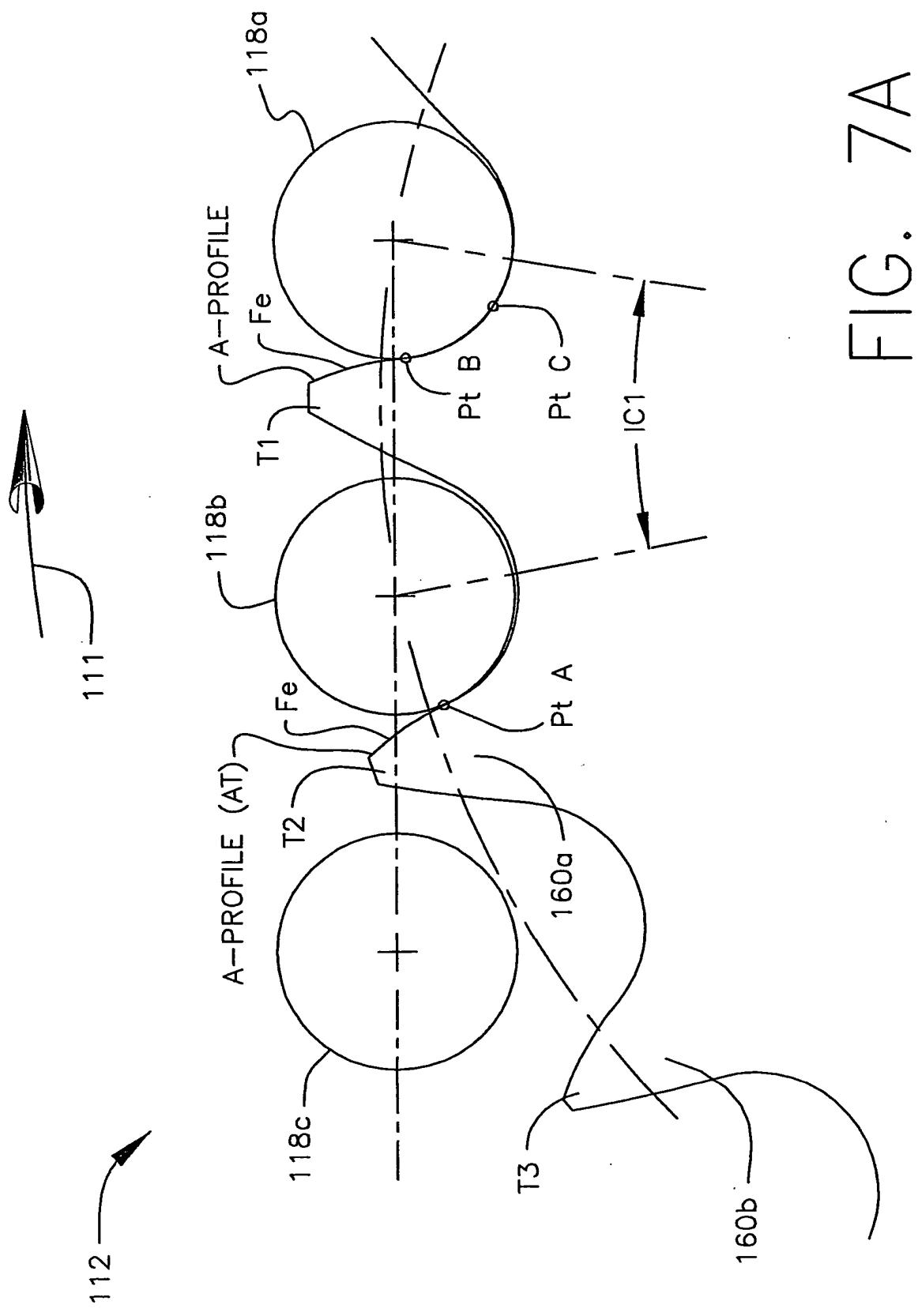


FIG. 7A

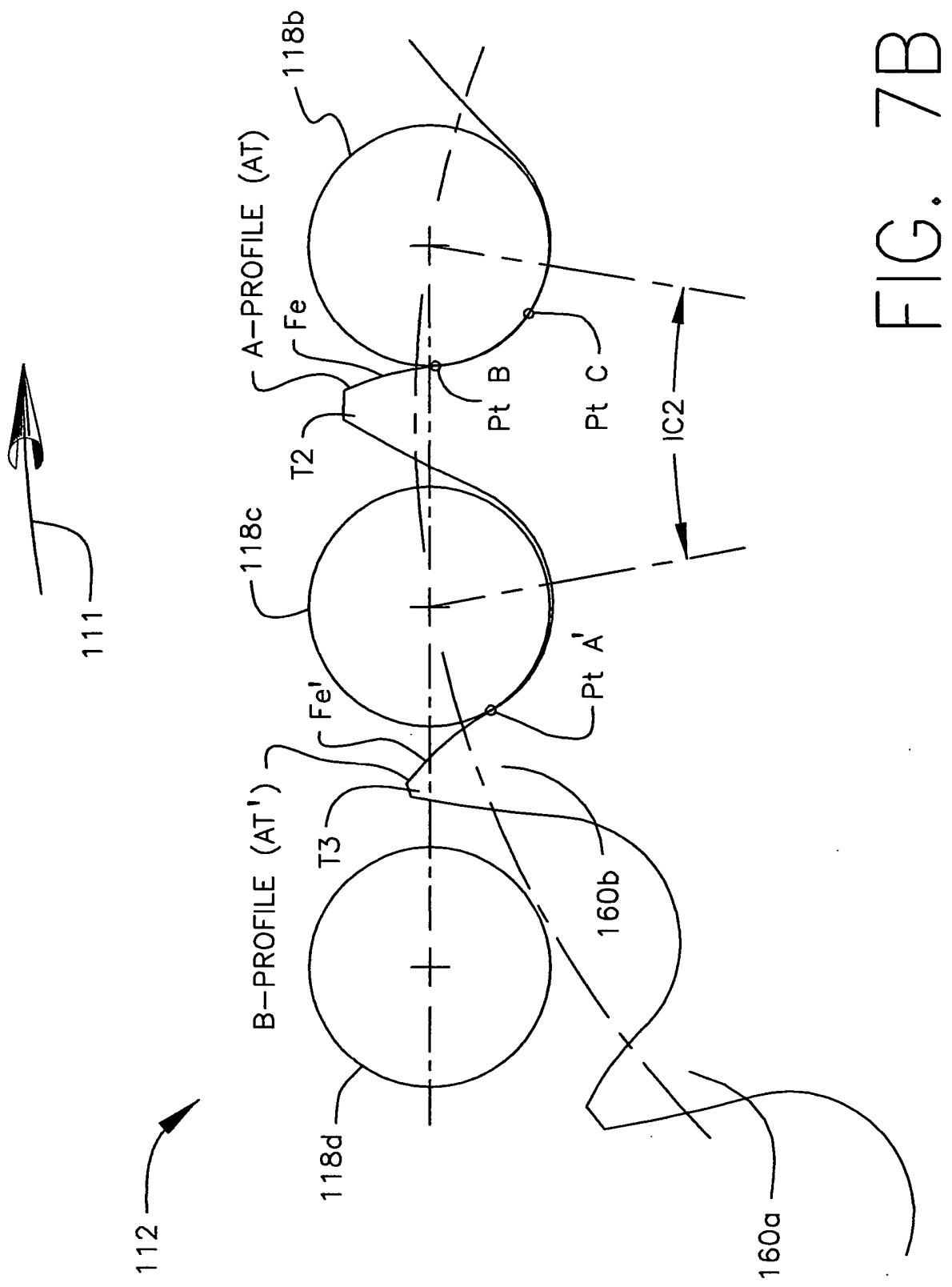


FIG. 7B

INITIAL MESHING CONTACT ANGLES
24 TOOTH SPROCKET
9.525 mm (3/8") PITCH
TOOTH ANGLE = 15°

ADDED CPR (mm)	A-PROFILE β AT	IC1	B-PROFILE β AT'	IC2	IC2 - IC1
ANGLE (DEGREES)					
80.5	15.054	71.5	15.071	0.017	
			69.5	0.019	
	15.062	71.5	15.082	0.020	
		69.5	15.085	0.022	
	15.071	71.5	15.093	0.023	
		69.5	15.096	0.026	
		71.5	15.105	0.025	
		69.5	15.108	0.029	
		71.5	15.116	0.028	
	15.087	69.5	15.119	0.032	
		68.5	15.121	0.034	

FIG. 7C

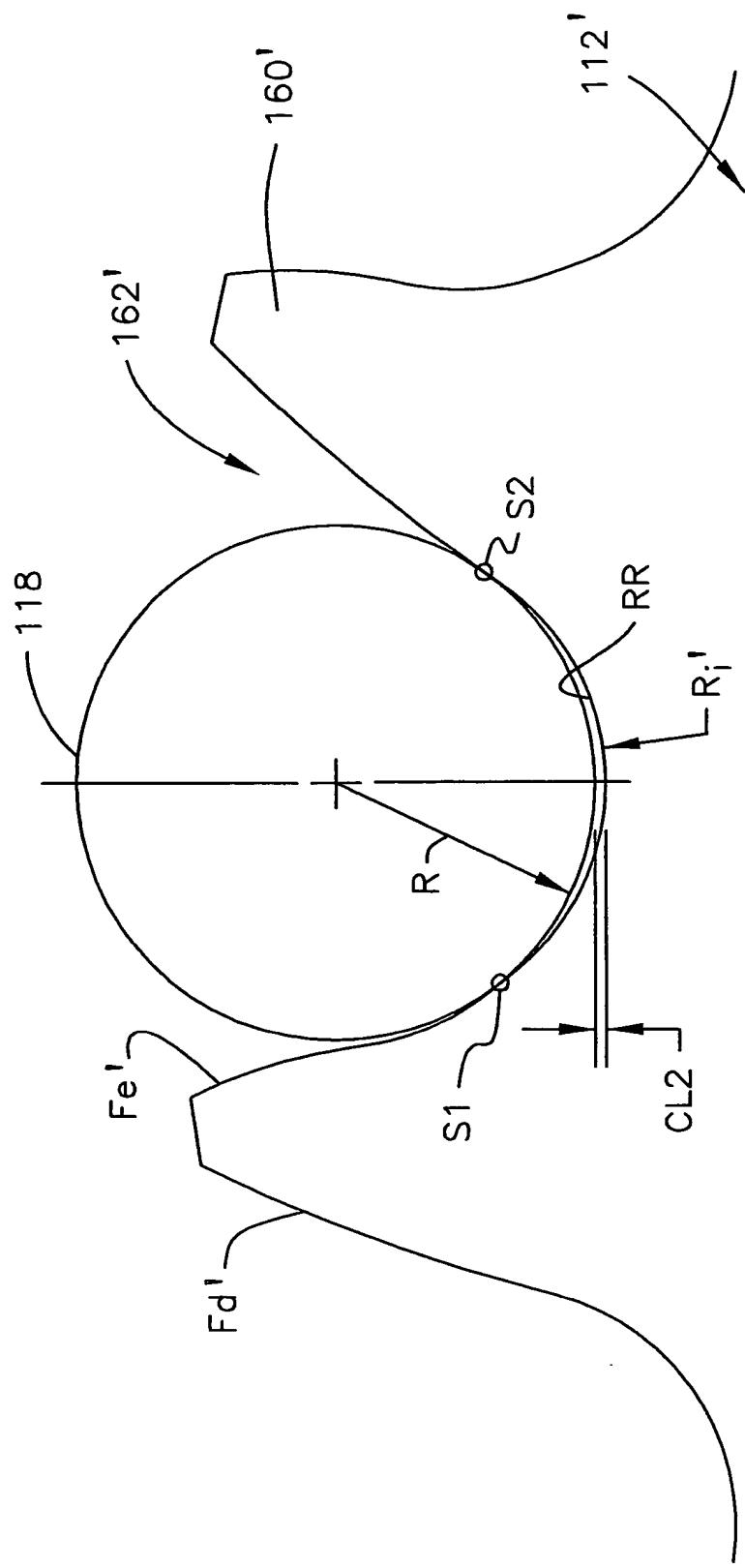


FIG. 8

FIG. 9

